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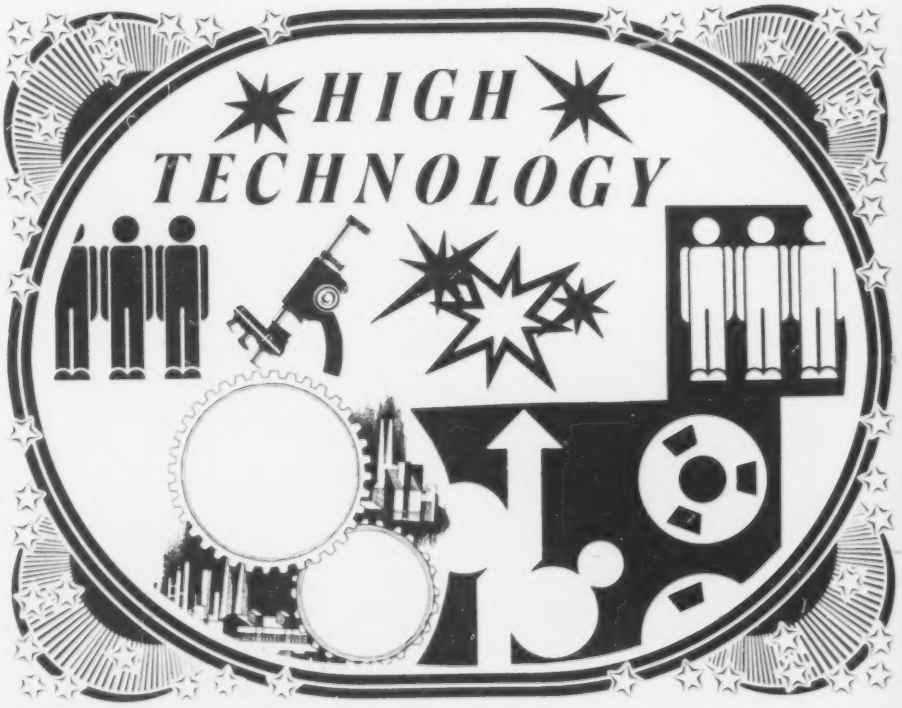
April 1984

JOB SERVICE WISCONSIN

Wisconsin Employment and Economic Indicators



WISCONSIN DATA AND SOURCES

	INDICATOR	SOURCE
L1	Composite Index of Leading Indicators	Wis.Dept. of Industry, Labor and Human Relations
L2	Average Work Week, Manufacturing	Wis. Dept. of Industry, Labor and Human Relations
L3	Average Overtime Hours, Mfg.	Wis. Dept. of Industry, Labor and Human Relations
L4	Average Weekly Initial Claims	Wis. Dept. of Industry, Labor and Human Relations
L5	Total Job Openings Received	Wis. Dept. of Industry, Labor and Human Relations
L6	New Business Incorporations	Wisconsin Secretary of State
L7	Net Gain in Business Phone Access Lines	Wis. Telephone Co. and General Telephone Co.
L8	Building Plans Examined	Wis. Dept. of Industry, Labor and Human Relations
C1	Help-Wanted Advertising Index (Milw.)	National Industrial Conference Board
C2	Total Unemployment Rate	Wis. Dept. of Industry, Labor and Human Relations
C3	Natural Gas Sales	Wisconsin Public Service Commission
C4	New Car Registrations	Wis. Department of Transportation
C5	Electric Power Sales	Wisconsin Public Service Commission
C6	Total Securities Registrations	Wisconsin Commissioner of Securities
C7	Personal Income	"Business Week," McGraw Hill
C8	Average Weekly Earnings, Mfg.	Wis. Dept. of Industry, Labor and Human Relations
C9	Cash Receipts From Farm Marketing	U.S. Department of Agriculture
C10	Contract Construction Employment	Wis. Dept. of Industry, Labor and Human Relations
X1	Birth Registrations	Wis. Department of Health and Social Services
X2	Death Registgrations	Wis. Department of Health and Social Services
X3	Natural Net Gain in Population	Wis. Department of Health and Social Services
X4	Marriage Registrations	Wis. Department of Health and Social Services
X5	Consumer Price Index (Milwaukee)	U.S. Bureau of Labor Statistics
X6	Index of Prices Received By Farmers	Wisconsin Department of Agriculture
X7	Net Gain in Residential Phone Access Lines	Wis. Telephone Co. and General Telephone Co.
X8	Labor Disputes, No. of Workers	Wis. Dept. of Industry, Labor and Human Relations
X9	Manufacturing Employment	Wis. Dept. of Industgry, Labor and Human Relations

NOTES: Selected series are seasonally adjusted by the Bureau of the Census X-11 Variant of the Census Method II Seasonal Adjustment Program. The adjusted data are plotted on arithmetic scales.

SECTION A is a summary of recent data and current changes for all indicators and is presented in chart form. The indicators are presented with cyclical timing as the principle basis of classification.

SECTION B is a summary of Wisconsin Labor Force Estimates, including Employment, Unemployment and Unemployment Rates, and selected U.S. data.

SECTION C analyzes the Wisconsin labor force by industry and by specified Standard Metropolitan Statistical Areas.

SECTION D singles out certain economic time series as being leading or coinciding in relation to movements in aggregate economic activity. They are seasonally adjusted and presented graphically. The indicators are grouped by cyclical timing.

THE WISCONSIN ECONOMY

SUMMARY FOR MARCH

MARCH'S LEADING INDICATORS ARE EVENLY SPLIT IN POINTING TOWARD CONTINUED ECONOMIC IMPROVEMENT. THE STATE'S COMPOSITE INDEX OF LEADING INDICATORS IS UP, PRIMARILY DUE TO A REDUCTION OF INITIAL CLAIMS FOR UNEMPLOYMENT COMPENSATION.

EMPLOYMENT THROUGHOUT THE STATE INCREASED, BUT LARGELY DUE TO NORMAL SEASONAL PATTERNS. UNEMPLOYMENT DECREASED, BUT THE LABOR FORCE SHRANK.

LEADING INDICATORS

Wisconsin's Composite Index of Leading Indicators rose to 74.5 in March. The increase follows two months of decline in the Index and the level is the highest since mid-1981. At 74.5, however, the Composite Index is still well below the base year of 1977, which equals 100.

The average number of hours worked per week by production workers in manufacturing decreased in March. A decrease is normal for this month, and the decrease fits the normal trend perfectly. The average number of overtime hours per week worked by production workers slipped down, but only slightly. In fact, the reduction was less than is seasonally normal, so the trend is up.

The average weekly number of initial claims for unemployment compensation decreased in March by over 1,300 from the previous month. The initial claim count usually begins decreasing in spring and generally continues to decline through summer. March's decrease surpassed the usual seasonal decrease for the month.

Total job openings received by the state's public Job Service offices increased by over 1,600 during March. Those orders from employers for job applicants, however, were all due to normal seasonal factors. The job openings figure was below the seasonal trend for March.

New business incorporations increased in March, but by less than the normal seasonal trend. However, this March is only the second month since mid-1981 that new business incorporations exceed 600.

The number of building plans examined rose sharply in March. The increase is well above the normal seasonal pattern.

WISCONSIN LABOR FORCE

Employment throughout Wisconsin increased between mid-February and mid-March. The employment gain amounted to 13,400 job holders, making this March's gain the largest for any recorded February to March change. Diluting that good news is the drop in employment when seasonally adjusted. It means that March's gain was entirely due to seasonal factors rather than economic improvement. The state's largest industrial sector, manufacturing, grew by 3,700 jobs. That's a stronger-than-normal growth for the season, and brings manufacturing close to the half-million-job mark.

Unemployment, when considered alone, showed excellent improvement. The number of unemployed people decreased by nearly eighteen-thousand in mid-March; and that's almost 4,000 more than the normal seasonal pattern contributes. However, when considered with change in the labor force size, unemployment fared a bit worse than the figures indicate. Some of the unemployment improvement resulted from labor force shrinkage: some of the unemployed simply stopped looking for jobs and dropped out of Wisconsin's labor force.

Section

A WISCONSIN ECONOMIC INDICATORS

INDICATOR	UNIT	MONTHLY SERIES Latest Month	Mo/Ago	Yr/Ago	% CHANGE Mo/Ago	% CHANGE Yr/Ago	AVG. 1983
LEADING INDICATORS							
L1 COMPOSITE INDEX OF LEADING INDICATORS							
Seasonally Adjusted	INDEX	74.5 Mar	67.5	47.0	10.4	58.1	
L2 AVG. WORK WEEK, MFG.							
Unadjusted	HOURS	41.2 Mar	41.4	40.0	-0.5	3.0	40.7
Seasonally Adjusted		41.2	41.4	40.0	-0.5	3.0	
L3 AVG. OVERTIME HOURS, MFG.							
Unadjusted	HOURS	3.2 Mar	3.3	2.3	-3.0	39.1	2.8
Seasonally Adjusted		3.4	3.3	2.4	3.0	41.7	
L4 AVG. WEEKLY INITIAL CLAIMS							
Unadjusted	NUMBER	9,515 Mar	10,839	17,334	-12.2	-45.1	14,694
Seasonally Adjusted		9,689	10,120	17,645	-4.3	-45.1	
L5 TOTAL JOB OPENINGS REC.							
Unadjusted	NUMBER	7,841 Mar	6,207	6,355	26.4	23.4	7,099
Seasonally Adjusted		8,850	9,061	7,172	-2.3	23.4	
L6 NEW BUSINESS INCORPORATIONS							
Unadjusted	NUMBER	673 Mar	551	541	22.1	24.4	544
Seasonally Adjusted		634	670	510	-5.4	24.3	
L7 NET GAIN IN BUSINESS PHONES ACCESS LINES							
Unadjusted	NUMBER	-77 Mar	-164	1,531	53.0	-105.0	892
Seasonally Adjusted		90	93	574	-3.2	-84.3	
L8 BUILDING PLANS EXAMINED							
Unadjusted	NUMBER	280 Mar	174	152	60.9	84.2	275
Seasonally Adjusted		427	276	232	54.7	84.0	
ROUGHLY COINCIDING INDICATORS							
C1 HELP-WANTED INDEX (MILW.)							
Seasonally Adjusted	INDEX	50 Mar	51	33	-2.0	51.5	38
C2 UNEMPLOYMENT RATE, TOTAL							
Unadjusted	PERCENT	8.7 Mar	9.4	13.3	-	-	10.4
Seasonally Adjusted		8.3	8.5	11.4	-	-	
C3 NATURAL GAS SALES							
Unadjusted	MIL. THERMS	352.5 Feb	491.1	338.3	-28.2	4.2	247.9
Seasonally Adjusted		226.0	266.2	216.8	-15.1	4.2	
C4 NEW CAR REGISTRATIONS							
Unadjusted	NUMBER	15,021 Mar	13,354	15,177	12.5	-1.0	14,429
Seasonally Adjusted		11,468	18,663	11,590	-38.6	-1.0	
C5 ELECTRIC POWER SALES							
Unadjusted	MIL. KWH	1749.5 Feb	1851.5	1604.7	-5.5	9.0	1765.1
Seasonally Adjusted		1818.6	1838.6	1667.8	-1.1	9.0	
C6 TOTAL SECURITIES REGISTRATIONS							
Unadjusted	MIL. DOL.	74.4 Mar	163.4	394.3	-54.5	-81.1	143.3
Seasonally Adjusted		88.3	178.6	467.5	-50.6	-81.1	

A WISCONSIN ECONOMIC INDICATORS

INDICATOR	UNIT	MONTHLY SERIES			% CHANGE		AVG.
		Latest Month	Mo/Ago	Yr/Ago	Mo/Ago	Yr/Ago	1983
C7 PERSONAL INCOME							
Unadjusted	MIL DOL	4,801 Dec	4,707	4,339	2.0	10.6	4,438
Seasonally Adjusted		4,698	4,597	4,246	2.2	10.6	
C8 AVG. WEEKLY EARNINGS, MFG.							
Unadjusted	DOLLARS	417.36 Mar	418.97	388.40	-0.4	7.5	398.01
Seasonally Adjusted		416.53	415.64	387.72	0.2	7.4	
C9 CASH RECEIPTS FROM FARM MKTG.							
Unadjusted	MIL DOL	432.7 Jan	430.8	445.6	0.4	-2.9	415.3
Seasonally Adjusted		418.1	408.2	430.6	2.4	-2.9	
C10 CONTRACT CONSTRUCTION EMPL.							
Unadjusted	THOUS	48.6 Mar	49.3	44.5	-1.4	9.2	55.0
Seasonally Adjusted		59.9	61.4	54.8	-2.4	9.3	
OTHER KEY INDICATORS							
X1 BIRTH REGISTRATIONS							
Unadjusted	NUMBER	5,862 Mar	5,461	5,895	7.3	-0.6	6,006
Seasonally Adjusted		5,862	5,118	5,892	14.5	-0.5	
X2 DEATH REGISTRATIONS							
Unadjusted	NUMBER	3,304 Mar	3,346	3,535	-1.3	-6.5	3,391
Seasonally Adjusted		3,214	3,220	3,440	-0.2	-6.6	
X3 NATURAL NET GAIN POPULATION							
Unadjusted	NUMBER	2,558 Mar	2,115	2,360	21.0	8.4	2,615
Seasonally Adjusted		2,704	1,973	2,494	37.0	8.4	
X4 MARRIAGE REGISTRATIONS							
Unadjusted	NUMBER	1,693 Mar	1,460	1,578	16.0	7.3	3,340
Seasonally Adjusted		2,637	2,645	2,458	-0.3	7.3	
X5 CONSUMER PRICE INDEX (MILW.)			(Jan)				
Unadjusted	INDEX	316.8 Mar	314.0	305.0	0.9	3.9	309.5
X6 PRICES RECEIVED BY FARMERS							
Unadjusted	INDEX	145 Mar	145	144	0.0	0.7	142
Seasonally Adjusted		144	143	143	0.7	0.7	
X7 NET GAIN IN RESIDENTIAL PHONES ACCESS LINES							
Unadjusted	NUMBER	942 Mar	-510	1,038	284.7	-9.2	872
Seasonally Adjusted		739	716	416	3.2	77.6	
X8 LABOR DISPUTES, NO. OF WORKERS							
Unadjusted	THOUS.	329 Mar	929	1,092	-64.6	-69.9	2,542
Seasonally Adjusted		325	2,426	1,080	-86.6	-69.9	
X9 MANUFACTURING EMPL.							
Unadjusted	THOUS.	497.5 Mar	494.7	466.5	0.6	6.6	486.0
Seasonally Adjusted		507.1	504.8	475.8	0.5	6.6	

Section

B

LABOR FORCE ESTIMATES

WISCONSIN LABOR FORCE ESTIMATES MARCH	(In Thousands)			Pct. Chg.	
	Latest Month	Month Ago	Year Ago	Month Ago	Year Ago
Unadjusted					
CIVILIAN LABOR FORCE	2420.6	2425.0	2442.0	-0.2	-0.9
Employment (Inc. Labor Disputes)	2209.4	2196.0	2117.4	0.6	4.3
Unemployment	211.2	229.0	324.6	-7.8	-34.9
Unemployment Rate	8.7	9.4	13.3	-	-
Seasonally Adjusted					
CIVILIAN LABOR FORCE	2435.0	2441.2	2433.8	-0.3	0.0
Employment (Inc. Labor Disputes)	2232.4	2234.7	2157.3	-0.1	3.5
Unemployment	202.6	206.5	276.5	-1.9	-26.7
Unemployment Rate	8.3	8.5	11.4	-	-

WISCONSIN EMPLOYMENT ESTIMATES MARCH	(In Thousands)			Pct. Chg.	
	Latest Month	Month Ago	Year Ago	Month Ago	Year Ago
TOTAL NONFARM WAGE AND SALARY WORKERS	1859.0	1851.1	1804.2	0.4	3.0
Unadjusted					
Manufacturing	497.5	493.8	465.5	0.8	6.9
Mining	1.8	1.5	1.4	20.0	28.6
Contract Construction	48.6	49.3	44.5	-1.4	9.2
Transportation and Public Utilities	85.2	84.8	84.3	0.5	1.1
Elec., Gas and Sanitary Services	16.8	16.7	16.6	0.6	1.2
Wholesale Trade	97.2	96.6	94.0	0.6	3.4
Retail Trade	322.6	320.0	317.1	0.8	1.7
General Merchandise	42.0	42.3	42.9	-0.7	-2.1
Finance, Insurance and Real Estate	97.1	96.7	95.7	0.4	1.5
Banking	27.1	27.0	26.5	0.4	2.3
Insurance	31.7	31.6	32.4	0.3	-2.2
Service and Miscellaneous	387.7	387.4	380.9	0.1	1.8
Hospitals	72.3	72.5	74.8	-0.3	-3.3
Private Education	22.9	23.2	23.8	-1.3	-3.8
Government	321.4	320.9	320.8	0.2	0.2
State Government	81.5	80.9	81.2	0.7	0.4
Local Government	212.0	212.1	212.1	-0.0	-0.0

UNITED STATES LABOR FORCE ESTIMATES MARCH	(In Thousands)			Pct. Chg.	
	Latest Month	Month Ago	Year Ago	Month Ago	Year Ago
Seasonally Adjusted					
CIVILIAN LABOR FORCE	112,912	112,693	110,735	0.2	2.0
Employment	104,140	103,892	99,316	0.2	4.9
Unemployment	8,772	8,801	11,419	-0.3	-23.2
Unemployment Rate	7.8	7.8	10.3	-	-

MANUFACTURING EMPLOYMENT *(Unadjusted)* MARCH	(In Thousands) Latest Month	Month Ago	Year Ago
All Manufacturing (Including Canning)	497.5	493.8	465.5
All Manufacturing (Excluding Canning)	491.3	487.8	459.5
Durable Goods	312.6	310.5	286.0
Lumber and Wood Prod., (Except Furniture)	21.5	20.6	18.3
Sawmills and Planning Mills	2.7	2.7	2.6
Millwork, Veneer, Plywood & Prefab. Wood Prod.	9.6	9.2	8.4
Furniture and Fixtures	9.3	9.3	8.5
Household Furniture	4.5	4.5	4.0
Stone, Clay and Glass Products	8.1	7.7	7.0
Concrete, Gypsum and Plaster Products	3.4	3.1	2.8
Primary Metal Industries	19.2	19.0	16.9
Iron and Steel Foundries	10.6	10.4	9.0
Fabricated Metal Products	50.5	50.4	47.1
Heating Equipment (Except Electrical) & Plumbing Fixtures	4.9	5.0	4.8
Fabricated Structural Metal Products	11.9	11.9	10.8
Metal Stampings	12.6	12.6	12.4
Machinery (Except Electrical)	97.5	97.9	91.7
Engines and Turbines	21.1	21.3	19.1
Farm Machinery and Equipment	12.8	12.9	12.6
Const., Min. & Material Handling Mach. & Equip.	13.2	13.3	11.6
Metalworking Machinery and Equipment	9.8	9.9	9.8
Special Industry Machinery (Except Metalworking)	9.7	9.6	9.7
General Industrial Machinery and Equipment	13.7	13.7	12.8
Service Industry Machines	7.3	7.3	7.3
Electrical Machinery, Equipment and Supplies	50.0	49.9	46.8
Electrical Industrial Apparatus	17.5	17.6	16.3
Household Appliances	6.5	6.4	6.1
Transportation Equipment	36.2	35.6	29.8
Motor Vehicles and Equipment	29.1	28.5	23.8
Instruments and Related Products	10.1	10.1	10.0
Miscellaneous Manufacturing	10.1	10.0	9.9
Nondurable Goods	184.9	183.3	179.5
Food and Kindred Products	57.2	57.3	57.1
Meat Products	13.3	13.3	12.8
Dairy Products	16.5	16.5	16.6
Canning and Preserving	6.2	6.1	6.0
Bakery Products	4.6	4.7	4.8
Beverage Industries	9.5	9.5	10.3
Textile Mill Products	4.5	4.4	4.0
Knitting Mills	3.8	3.6	3.3
Apparel and Other Finished Products	6.7	6.7	6.2
Paper and Allied Products	46.6	45.5	45.4
Pulp and Paper Mills	28.9	28.1	28.4
Converted Paper and Paperboard Products	9.3	9.2	8.8
Paperboard Containers and Boxes	7.2	7.1	7.0
Printing, Publishing and Allied Industries	33.5	33.3	32.2
Newspapers	10.8	10.7	10.4
Commercial Printing	13.9	13.9	13.0
Chemicals and Allied Products	9.1	9.1	9.1
Rubber and Misc. Plastics Products	18.3	18.2	16.7
Miscellaneous Plastics Products	14.0	13.8	12.9
Leather and Leather Products	8.5	8.5	8.3
Leather Tanning and Finishing	2.4	2.4	2.5
Footwear (Except Rubber)	4.4	4.3	4.1
Other Nondurable Goods	-	-	-

Section

C WISCONSIN EARNINGS AND HOURS DATA

EARNINGS AND HOURS *(Unadjusted)* MARCH	Average Weekly Earnings			Average Weekly Hours		
	Latest Month	Mo. Ago	Yr. Ago	Latest Month	Mo. Ago	Yr. Ago
All Manufacturing (Incl. Canning)	$417	$419	$388	41.2	41.4	40.0
All Manufacturing (Excl. Canning)	419	420	390	41.3	41.4	40.0
Durable Goods	427	430	395	41.4	41.7	40.0
Lumber/Wood Prod. (Exc. Furn.)	304	303	284	40.9	40.9	39.8
Furniture and Fixtures	315	315	294	42.2	42.0	41.3
Stone, Clay and Glass Products	386	390	351	42.5	42.6	40.2
Primary Metal Industries	407	408	373	42.2	42.2	39.7
Iron and Steel Foundries	419	421	372	42.3	42.6	39.0
Fabricated Metal Products	409	409	393	40.5	40.8	40.2
Fab. Structural Metal Prod.	412	410	401	42.0	42.0	40.8
Metal Stampings	381	381	365	38.8	39.2	39.1
Machinery (Except Electrical)	492	498	439	42.2	42.7	39.7
Engines and Turbines	552	570	470	43.0	44.2	38.7
Farm Machinery and Equip.	530	529	484	41.9	41.8	40.3
Const. and Related Mach.	494	489	433	41.3	41.3	39.2
Metalworking Mach. and Equip.	466	479	429	40.9	42.0	39.9
Spec. Ind. Mach. (Exc. Metal).	505	509	453	46.3	46.6	44.3
Gen. Industrial Mach. and Equip.	488	481	443	41.7	41.4	39.6
Electrical Mach., Equip. and Supp.	389	390	369	40.9	41.1	39.8
Electrical Industrial Apparatus	419	415	387	41.0	40.8	39.2
Transportation Equipment	534	543	512	41.4	42.2	41.1
Instruments and Related Prod.	311	331	312	38.2	39.7	37.4
Nondurable Goods	401	397	378	40.9	40.7	40.0
Food and Kindred Products	382	381	370	39.2	38.9	38.5
Meat Products	391	388	380	38.8	38.7	37.4
Dairy Products	362	365	349	38.9	39.3	39.0
Textile Mill Products	282	277	261	40.4	38.7	38.4
Apparel and Other Fin. Prod.	220	218	215	36.7	36.5	37.6
Paper and Allied Products	487	490	450	44.6	44.9	43.8
Pulp and Paper Mills	528	528	482	46.0	46.2	45.1
Printing, Pub. and Allied Prod.	457	439	402	40.4	39.6	37.6
Chemicals and Allied Products	448	456	423	42.3	43.9	41.5
Rubber and Misc. Plastics Prod.	321	324	321	39.9	40.0	40.2
Leather and Leather Products.	257	255	257	38.5	38.5	37.8

Section

C WISCONSIN EARNINGS AND HOURS DATA

EARNINGS AND HOURS *(Unadjusted)* MARCH	Average Hourly Earnings Including O.T.			Average Hourly Earnings Excluding O.T.		
	Latest Month	Mo. Ago	Yr. Ago	Latest Month	Mo. Ago	Yr. Ago
All Manufacturing (Incl. Canning)	10.13	10.12	9.71	9.73	9.72	9.46
All Manufacturing (Excl. Canning)	10.15	10.15	9.75	9.76	9.75	9.50
Durable Goods	10.31	10.32	9.87	9.94	9.94	9.70
Lumber/Wood Prod. (Exc. Furn.)	7.43	7.41	7.14	7.39	7.35	7.01
Furniture and Fixtures	7.47	7.49	7.11	7.29	7.31	7.04
Stone, Clay and Glass Products	9.09	9.16	8.72	8.76	8.79	8.59
Primary Metal Industries	9.65	9.66	9.39	9.25	9.28	9.16
Iron and Steel Foundries	9.90	9.88	9.54	9.51	9.50	9.36
Fabricated Metal Products	10.09	10.03	9.78	9.61	9.60	9.47
Fab. Structural Metal Prod.	9.81	9.77	9.84	9.44	9.42	9.57
Metal Stampings	9.83	9.71	9.34	9.65	9.52	9.18
Machinery (Except Electrical)	11.66	11.66	11.05	11.21	11.19	10.92
Engines and Turbines	12.83	12.89	12.14	12.08	12.04	12.02
Farm Machinery and Equip.	12.65	12.66	12.02	12.31	12.33	11.88
Const. and Related Mach.	11.97	11.84	11.04	11.80	11.70	10.93
Metalworking Mach. and Equip.	11.40	11.40	10.74	11.10	11.05	10.64
Spec. Ind. Mach. (Exc. Metal).	10.91	10.92	10.23	10.44	10.54	10.01
Gen. Industrial Mach. and Equip.	11.70	11.63	11.18	11.28	11.21	11.06
Electrical Mach., Equip. and Supp.	9.52	9.48	9.27	9.29	9.23	9.23
Electrical Industrial Apparatus	10.21	10.17	9.86	9.98	9.98	9.76
Transportation Equipment	12.91	12.87	12.46	12.43	12.38	12.07
Instruments and Related Prod.	8.14	8.33	8.33	8.13	8.10	-
Nondurable Goods	9.80	9.76	9.46	9.34	9.33	9.08
Food and Kindred Products	9.75	9.79	9.62	9.36	9.40	9.21
Meat Products	10.08	10.03	10.16	9.74	9.71	9.85
Dairy Products	9.30	9.30	8.96	9.00	9.00	8.64
Textile Mill Products	6.97	7.16	6.81	6.77	7.02	6.68
Apparel and Other Fin. Prod.	6.00	5.98	5.72	5.89	5.82	5.60
Paper and Allied Products	10.92	10.91	10.27	10.40	10.41	9.80
Pulp and Paper Mills	11.48	11.42	10.69	10.89	10.89	10.17
Printing, Pub. and Allied Prod.	11.32	11.09	10.68	-	-	-
Chemicals and Allied Products	10.60	10.38	10.20	10.22	9.97	9.94
Rubber and Misc. Plastics Prod.	8.05	8.09	7.98	7.77	7.78	7.76
Leather and Leather Products.	6.68	6.63	6.81	6.55	6.50	6.65

Section

C SUMMARY OF RECENT WISCONSIN DATA

EARNINGS AND HOURS, MFG. Production Workers (Unadjusted) MARCH	Average Weekly						Average Hourly Earnings				
	Earnings			Hours			Including O.T.			Excluding O.T.	
	Latest Month	Month Ago	Year Ago	Latest Month	Month Ago	Year Ago	Latest Month	Month Ago	Year Ago	Latest Month	Month Ago
United States	370	370	346	40.6	40.7	39.6	9.11	9.08	8.74	-	-
Wisconsin	417	419	388	41.2	41.4	40.0	10.13	10.12	9.71	9.73	9.72
Selected Areas											
Appleton-Oshkosh (Calumet-Winnebago-Outagamie)	409	409	385	42.0	42.3	41.7	9.74	9.67	9.24	9.31	9.24
Beloit (City)	410	426	394	43.2	44.9	43.0	9.49	9.48	9.16	-	-
Eau Claire (Eau Claire-Chippewa)	408	394	378	41.5	39.7	40.9	9.83	9.92	9.25	9.54	9.66
Fond du Lac (County)	366	375	327	40.4	41.4	39.5	9.07	9.06	8.28	8.93	8.81
Green Bay (Brown County)	441	442	403	41.1	41.3	40.4	10.72	10.69	9.98	10.15	10.09
Janesville (City)	505	512	537	39.1	40.0	42.9	12.89	12.82	12.51	12.73	12.61
Janesville-Beloit (Rock County)	451	461	438	40.2	41.3	41.8	11.22	11.17	10.47	10.99	10.89
Kenosha (County)	476	487	433	40.2	41.4	38.3	11.84	11.77	11.30	11.45	11.33
La Crosse (County)	340	342	339	39.0	38.9	39.2	8.73	8.79	8.64	8.34	8.34
Madison (Dane County)	381	373	376	40.5	39.4	39.6	9.41	9.47	9.49	9.03	9.09
Manitowoc (County)	335	343	313	38.2	39.2	38.1	8.77	8.76	8.22	8.67	8.62
Milwaukee (Milwaukee-Ozaukee-Waukesha-Washington)	471	469	429	41.8	41.7	39.8	11.27	11.25	10.77	10.71	10.71
Racine (County)	428	430	404	41.4	41.8	39.8	10.35	10.29	10.15	9.97	9.92
Sheboygan (County)	371	375	355	39.6	39.8	38.5	9.37	9.43	9.22	9.08	9.18
Wausau (Marathon County)	371	376	360	40.7	41.1	40.5	9.12	9.15	8.90	8.81	8.83

EMPLOYMENT, MFG. (Unadjusted) MARCH	(In Thousands)			Percent Change	
	Latest Month	Month Ago	Year Ago	Month Ago	Year Ago
United States	19,450.0	19,307.0	18,166.0	0.7	7.1
Wisconsin	497.5	493.8	465.5	0.8	6.9
Selected Areas					
Appleton-Oshkosh (Calumet-Winnebago-Outagamie)	46.2	46.1	43.7	0.2	5.7
Beloit (City)	5.6	5.6	5.9	0.0	-5.1
Eau Claire (Eau Claire-Chippewa)	8.6	8.6	8.5	0.0	1.2
Fond du Lac (County)	9.6	9.5	9.4	1.0	2.1
Green Bay (Brown County)	20.9	20.9	19.8	0.0	5.6
Janesville (City)	11.0	10.8	8.4	1.8	31.0
Janesville-Beloit (Rock County)	18.7	18.5	16.2	1.1	15.4
Kenosha (County)	17.3	17.1	15.0	1.2	15.3
La Crosse (County)	10.0	10.0	9.9	0.0	1.0
Madison (Dane County)	18.8	18.7	18.1	0.5	3.9
Manitowoc (County)	10.9	11.1	11.2	-1.8	-2.7
Milwaukee (Milwaukee-Ozaukee-Waukesha-Washington)	169.9	169.4	160.2	0.3	6.0
Racine (County)	24.8	24.9	22.6	-0.4	9.7
Sheboygan (County)	17.7	17.7	16.7	0.0	6.0
Wausau (Marathon County)	11.5	11.4	10.4	0.9	10.6

HIGH TECHNOLOGY ON THE WAY

"Plastics." That one word figuratively summed the economic and occupational opportunities of several years ago. Today, many economists, business leaders and public officials are re-casting that word to "high-tech." Basic manufacturing industries, they say, are shifting to automated processes. Future job opportunities, they predict, will be in high technology occupations which require high levels of knowledge and training.

The impact of computers and other high tech developments on current and future occupations has been a major concern of the Wisconsin Career Information System (WCIS). Examination of four high tech areas is the foundation of WCIS's new area of career information delivery. WCIS intends this information to be predictive, even futuristic. Compiled from many sources, it is designed to help career planners understand current trends and envision future possibilities. High tech occupations are divided into four categories: Computers in Information Processing, Biological Engineering, Computer Integrated Manufacturing, and Communications Technologies.

We are changing from an industrial to an information society. By the year 2000, there will be four times as much information available as in 1980. Two-thirds of the content will be new, different, or updated. Currently, 60 percent of the people who work are knowledge workers whose job duties include changing, moving, handling, or storing information. By 1986, there will be 38 million computers, word processors, telecopiers, and switchboards that will handle information. By 1985, three-quarters of all jobs will involve computers, making computer literacy essential for most occupations. Ten to twenty hours of actual hands-on computer experience can mean an increase of $1,000 a year in salary. The coming changes will force training and retraining for workers in computer technology whether or not they are employed in an information occupation.

The U.S. Department of Labor predicts that between 1980 and 1990, there will be a near doubling of workers employed in computer support services. This work area includes computer programming, design of computer hardware, marketing and sales of hardware and software (computer programs), maintenance of hardware, and training in the use of computers and programs. The demand for programmers may be tempered by several technological advancements. Software is being designed that is "user friendly." That is, it is not necessary to have a computer background to use it. Computer industries are also redesigning hardware, including microcomputers, which will be easier to program. Another development is the "software factory" which uses an assembly line approach to write programs. Should the redesign of microcomputers or the software factory approach be successful, high demand for program writers could be limited. However, as these two innovations are developed, the demand for electronics engineers will increase.

Another computer-related area where workers are needed is consulting. People are needed to market, handle, and sell the information to others. In 1983, computer software marketing was a $1,000,000-a-year business. It is estimated that there are over 30,000 software titles, and the number is growing daily. One emerging occupation is "software searcher" which is the job of assisting businesses determine the appropriate software for their personal computers. Some large corporations have departments to evaluate software. Directories of computer programs, resembling the Manhattan telephone book, catalogue thousands of programs. These directories have to be produced, marketed and sold.

Clerical workers and librarians will depend on computers. Clerical workers are the largest, fastest growing, and most expensive area of the workforce. Equipment that can assist with clerical tasks and handle massive amounts of information is a plus to organizations. Word processors-microcomputers that can correct spelling, electronically erase errors, close holes left by deleted words, and store documents-will replace typewriters. There will be a change to a decentralized office. Work stations will be found throughout the office or even the community. A telephone will connect work stations with a large computer in the central office. Some staff may work in offices in their homes using the telephone to connect to the main office computer. There will be more use of electronic mail. A computer network will be used to write, send, and receive messages, taking only several minutes instead of days.

There will also be changes in libraries. Computerization will allow the growth of centralized, shared cataloging systems and increased customer access to on-line terminals. Close to 60 percent of the graduates from library schools in 2010 will be self-employed or work out of libraries under contract to small businesses, community groups, city governments, or individuals.

Rapid transfer of information and computer analysis of data will aid professional people. Some people predict that any manager not having access to a computer terminal in the next few years will not be able to function within the organization. Computers will be used by executives, doctors, stockbrokers, lawyers, farmers, retailers, and writers-nearly all professional workers.

Another high technology area likely to be prominent in the near future is biological engineering. Controversy exists over ethical issues involved in genetic engineering. Some people consider it meddling with nature, and fear the creation of "monster" plants-or people. Safety guidelines to monitor experiments are strict. Applications for genetic engineering are being researched in medicine, agriculture, pharmaceuticals, and natural resource development. Up to now, the selective breeding of plants and animals has taken years of field work. It took almost 10 years to develop a hybrid variety of corn.

Research is continuing and the demand for scientific and technical jobs related to genetic engineering is increasing. This is particularly true for technicians. Post-secondary training will be needed for employment. Required skills include the ability to operate laser sorters, spectrometers, chromotographs, and automatic gene splicing machines.

Genetic engineering research in agriculture includes developing self-fertilizing crops, producing vaccines against live-stock disease, and developing plants that are resistant to heat, cold and drought. Farming should become more efficient and easier. It has been predicted that the number of people farming will decrease to 3 percent by 1990. Demand for occupations related to the inspection of agricultural products may decrease since plants and animals will be healthier. Jobs related to the supply of agricultural products such as herbicides, seeds, and fertilizers will include knowledge of the latest genetically developed products. It has been predicted that by 1990, sales of bio-engineered agricultural products will approach $2-4 billion.

Genetic engineering developments in the field of health include the production of drugs and vaccines that may cure viral infections such as colds, flu, and certain types of cancer. While the impact of genetic engineering on health will be immense, it is difficult to say how it will affect jobs in the field. Health care professionals will, of course, need to know about the drugs and vaccines developed. If the level of health of the population improves markedly, it may lessen the demand for health professionals.

Genetic engineering research will have an impact on natural resources. Efforts are under way to create microbes that devour pesticide and oil molecules from oil spills; to improve bacterial strains that live on metallic ores, so more ore is oxidized and is thus easier to obtain; and to convert biomass, such as wood, to alcohol and other chemicals. This process has the potential to become the basis for a liquid fuel industry not dependent on petroleum, and a chemical industry not based on petroleum raw materials. If methods are developed to produce ore in more quantity and more rapidly, this could affect occupations related to mining. Finding alternatives to petroleum could lessen the demand for workers in that industry. While petroleum and mining engineers, geologists and technicians will still be needed, they will need to know about developments in genetic engineering.

High technology has already begun moving into basic manufacturing industries. Future factories may have almost completely automated management operations. Since top management will have access to all information and reports on production and profits, they will be able to make decisions and direct operations with fewer middle management and clerical personnel.

Computer-aided design allows designers to produce drawings of an object from any perspective as well as producing its specifications and production schedule. Once the design is entered into the computer, all departments of

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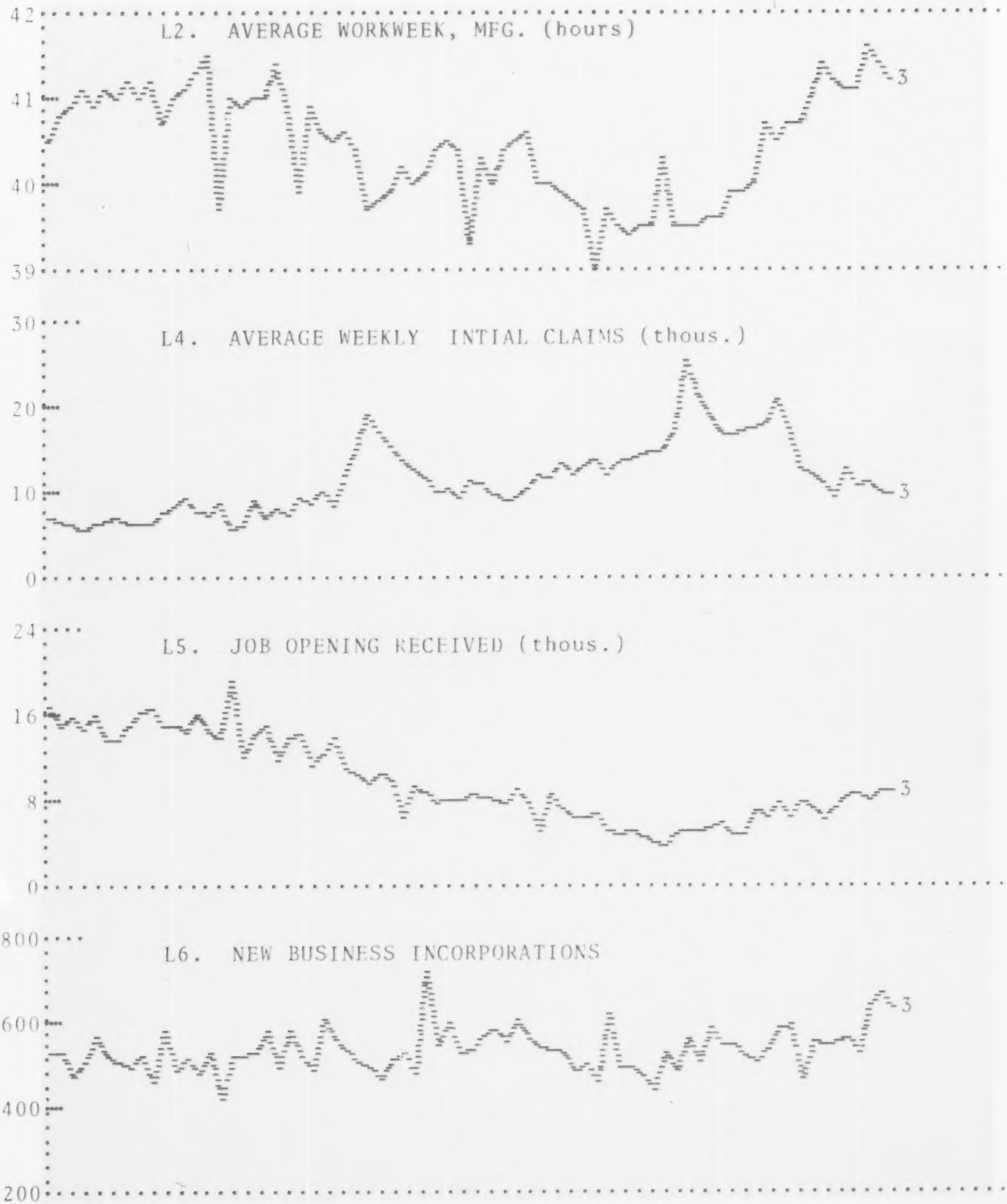

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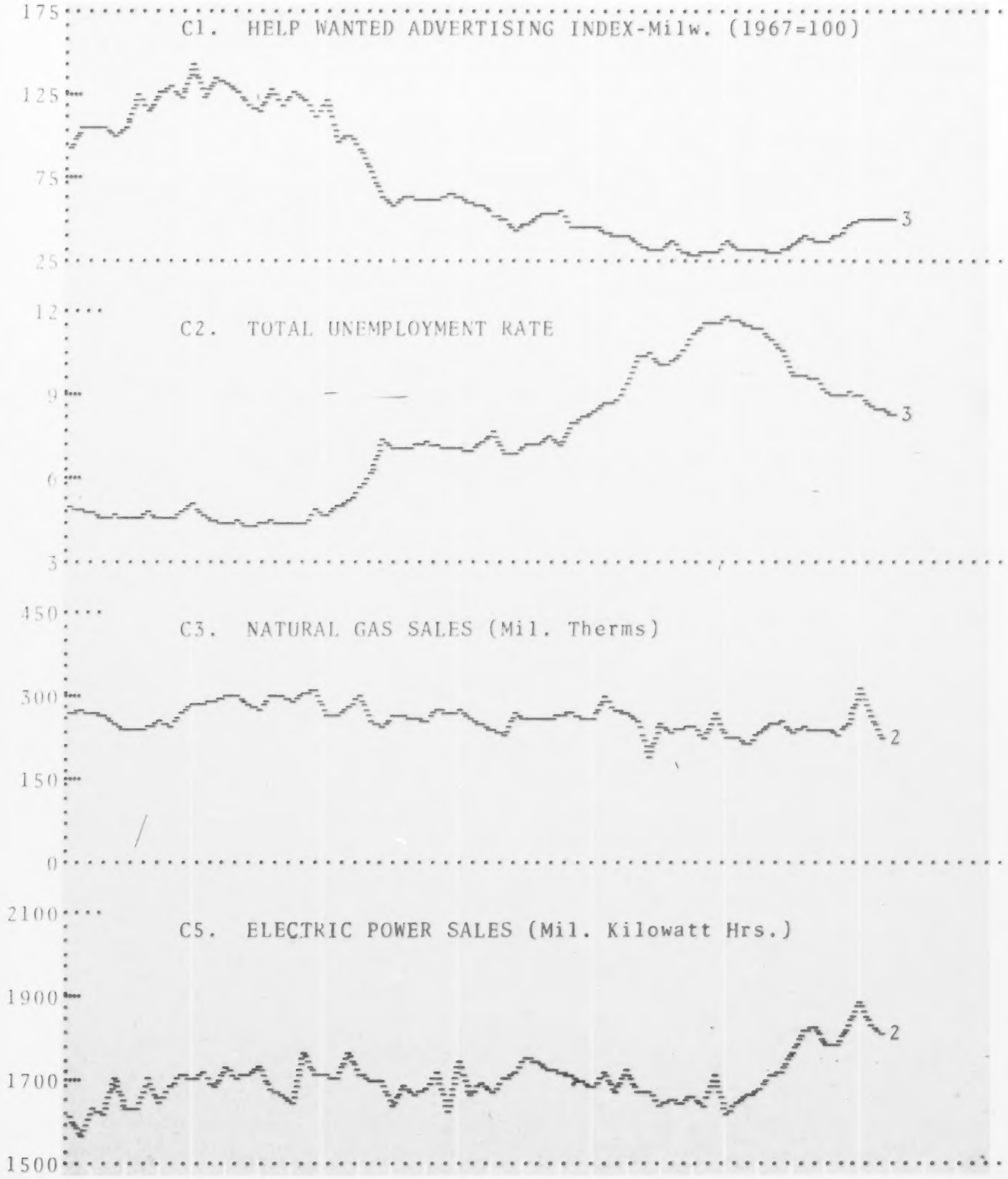

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the company have immediate access to needed information. Programmers have data for the set-up and operation of numerically-controlled manufacturing machines. Engineers can perform stress tests without building a prototype. There will be a decrease in the need for workers in drafting occupations. Designers will need computer skills to enter design data. Manufacturing operations can be controlled by data processing equipment. Tasks that machines will take over range from automatic storing and retrieving of parts to numerically-controlled machining and processing. As computers become more "intelligent," robots will be able to take over more human functions. It is expected that as many as 150,000 robots will be in use in the United States by 1990. More conservative estimates foresee a growth to 50,000 to 100,000 by that year. This may mean the loss of 100,000 to 200,000 jobs, but will create 32,000 to 64,000 new jobs. Robots will replace unskilled workers. Some displaced workers will be retrained to supervise robot work activities or to service and maintain robots.